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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,505	11/01/2001	Bernard Iulo	POU920010026US1	4214

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EXAMINER

SANTOS, PATRICK J D

ART UNIT	PAPER NUMBER
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2171

DATE MAILED: 01/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/002,505

Applicant(s)

IULO, BERNARD

Examiner

Patrick J Santos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 7 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,835,770, issued to Shum et al. (hereafter Shum '770).

Claims 7 and 12:

Regarding Claims 7 and 12, Shum '770 teaches a method for managing computer system performance, and a storage medium encoded with machine-readable computer program code for managing computer system performance, the storage medium including instructions for causing the computer system to implement a method [Shum '770: Abstract; col. 3, lns. 25-49], comprising:

- Receiving a request to initiate a system activity analysis program [Shum '770: col. 3, lns. 36-40];
- Invoking said program [Shum '770: col. 3, lns. 36-40];
- Receiving a task name [Shum '770: col. 3, lns. 40-41; col. 6, lns. 10-11];
- Searching at least one database for said task name [Shum '770: col. 3, lns. 38-44; col. 5, lns. 40-53];

- Retrieving data associated with said task name [Shum '770: col. 3, lns. 40-44]; and
- Displaying said data to said user [Shum '770: col. 3, lns. 45-49].

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shum '770, in view of the publication "MICROSOFT BACKOFFICE (TM) Administrator's Survival Guide," by Arthur Knowles, published by SAMS PUBLISHING (TM), 1996 (hereafter Knowles '96), and in further view of U.S. Patent No. 5,617,566 to Malcolm (hereafter Malcolm '566).

Claim 1:

Regarding Claim 1, Shum '770 teaches a facility to inquire to a task's status in a distributed system. Specifically, Shum '770 teaches: a system for managing computer performance [Shum '770: Abstract; col. 3, lns. 25-49], comprising:

- A server connected to a network link [Shum '770: col. 3, ln. 26];
- A data storage device [Shum '770: col. 3, lns. 38-39];
- A client system in communication with said server [Shum '770: col. 3, lns. 45-46];

- A system monitor program executed by said server [Shum '770: col. 3, lns. 36-39], said system monitor program including a user interface [Shum '770: col. 3, lns. 40-41; col. 6, lns. 10-11]; and
- A system activity analysis program executable by said server [Shum '770: col. 3, lns. 36-39]; wherein upon execution said system activity analysis program causes said server to search said data storage device [Shum '770: col. 3, lns. 40-44], retrieve data relating to a request for analysis of a task, and present said data to a user on said client system [Shum '770: col. 3, lns. 44-49].

However, Shum '770 does not explicitly teach the data storage device including:

- A system activity database, said system activity database storing activity records and environmental records; and
- An auxiliary database; said data storage device in communication with said server.

Knowles '96 teaches SYSTEMS MANAGEMENT SERVER (TM) (SMS), a well known systems management product produced by MICROSOFT CORPORATION (TM). SMS (TM) uses SQL SERVER (TM), a relational database produced by MICROSOFT CORPORATION (TM), to store monitoring data. Specifically, Knowles '96 teaches: a data storage device [Knowles '96: pp. 601-603, note the section "Modifying the SQL Server Configuration" which teaches configuring SQL SERVER (TM) as the backend for SMS (TM)] including:

- A system activity database, said system activity database storing activity records and environmental records [Knowles '96: p. 633, note Table 20.2 which indicates items such as Events and Alerts as stored in the SMS (TM) database];

However, Knowles '96 does not teach:

- An auxiliary database; said data storage device in communication with said server.

Malcolm '566 teaches a logging and archiving system via an auxiliary database.

Specifically, Malcolm '566 teaches:

- An auxiliary database; said data storage device in communication with said server

[Malcolm '566: Abstract; col. 3, lns. 17-26].

It would have been obvious for a person having ordinary skill in the art to incorporate the relational database of Knowles '96 for the data storage device of Shum '770. The motivation to accomplish said incorporation is suggested by Knowles '96 which teaches use of a transactional relational database (such as SQL SERVER (TM)) on a dedicated server provides the advantage of cost effectiveness, increased performance, scalability, and efficient use of network bandwidth, to an application [Knowles '96: pp. 394-396; note enumeration of benefits on p. 396]. Note that Knowles '96 teaches SQL SERVER (TM) as a backend database for SMS (TM), which like the Shum '770 task status inquiry facility, collects monitoring data [Knowles '96: p. 633, note Table 20.2 which indicates items such as Events and Alerts as stored in the SMS (TM) database]. Thus applying the database of Knowles '96 to the facility of Shum '770 provides the Shum '770 facility with the advantages of cost effectiveness, increased performance, scalability, and efficient use of network bandwidth, to an application.

It would have been obvious for a person having ordinary skill in the art to incorporate the auxiliary database of Malcolm '566 with the Shum '770 and Knowles '96 combination. The motivation to accomplish said incorporation is suggested by Malcolm '566 which teaches that applying de-migration techniques (including storing historical data in an auxiliary database yet having the data still accessible) to databases provides the advantage of saving disk space from

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records not frequently accessed [Malcolm '566: col. 2, lns. 14-39; also see col. 1, ln. 37 to col. 2, ln. 14]. Applying the auxiliary database of Malcolm '566 to the Shum '770 and Knowles '96 combination thus results in disk space optimization.

Claim 2:

Regarding Claim 2, Shum '770, Knowles '96, and Malcolm '566 in combination teach all the limitations of Claim 1 [supra]. Further note that Shum '770 teaches that the activity record is includes but is not limited to "information passing between the application requestor and the operating system" [Shum '770: col. 5, lns. 17-40]. Since the specific fields, with the exception of the activity record identifier, enumerated by Claim 2 for the activity record are all information provided by the operating system (status of a task, task identifier, memory allocation, storage requests, locks, timestamps), Shum '770 reads on all of these fields. Examiner takes official notice that a record in a relational database such as SQL SERVER (TM) contains a unique identifier (e.g. primary key), thus Shum '770, Knowles '96, and Malcolm '566 in combination read on all the fields enumerated by Claim 2, including the activity record identifier.

Claim 3:

Regarding Claim 3, Shum '770, Knowles '96, and Malcolm '566 in combination teach all the limitations of Claim 2 [supra]. Further note that Shum '770 teaches that said activity records generated by said system monitor program in response to tasks executed via either of said client system and said server [Shum '770: col. 3, lns. 25-35]. Note also that Shum '770 teaches a number of alternative software architectural configurations [Shum '770: Figs. 2-7].

Claim 4:

Regarding Claim 4, Shum '770, Knowles '96, and Malcolm '566 in combination teach all the limitations of Claim 1 [supra]. Further note that Shum '770 teaches that the environmental record is includes but is not limited to "information passing between the application requestor and the operating system" [Shum '770: col. 5, lns. 17-40]. Note that the specification states, "Many operating systems today provide a variety of installation tools that gather much of this (environmental record) data" [Applicant's Specification: p. 7, para. 0032, lns. 4-5]. Since the specific fields, with the exception of the environmental record, are all information provided by the operating system, Shum '770 reads on these fields. Examiner takes official notice that a record in a relational database such as SQL SERVER (TM) contains a unique identifier (e.g. primary key), thus Shum '770, Knowles '96, and Malcolm '566 in combination read on all the fields enumerated by Claim 4, including the environmental record identifier.

Claim 5:

Regarding Claim 5, Shum '770, Knowles '96, and Malcolm '566 in combination teach all the limitations of Claim 4 [supra]. Further note that Shum '770 teaches that the environmental records are generated by the system monitor program [Shum '770: col. col. 3, lns. 36-39] via said user interface [Shum '770: col. 3, lns. 40-42].

Claim 6:

Regarding Claim 6, Shum '770, Knowles '96, and Malcolm '566 in combination teach all the limitations of Claim 1 [supra]. Further note that the logging and archiving via auxiliary database system taught by Malcolm '566 teaches that the data stored in said system activity database are periodically transferred to said auxiliary database [Malcolm '566: Abstract; col. 1, lns. 17-23].

5. Claims 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shum '770, in view of the U.S. Patent No. 4,166,290 issued to Furtman et al. (hereafter Furtman '290).

Claims 8 and 13:

Regarding Claims 8 and 13, Shum '770 teaches all the limitations of Claims 7 and 12 [supra]. Note that Shum '770 further teaches:

- Searching said database for data relating to said request [Shum '770: col. 3, lns. 36-41];
and
- Displaying said data to said user [Shum '770: col. 3, lns. 38-49].

However, Shum '770 does not explicitly teach contention analysis.

Furtman '290 teaches a computer monitoring system capable of contention analysis [Furtman '290: col. 4, lns. 30-34].

It would have been obvious to a person having ordinary skill in the art to combine the contention analysis report of Furtman '290 with the performance manager of Shum '770. The motivation to accomplish said combination is suggested by Furtman '290 which teaches that performance monitoring is necessary for optimizing equipment [Furtman '290: col. 1, lns. 7-24]. Since contention analysis indicates an area where the system configuration is sub-optimal, combining the contention analysis report of Furtman '290 with the Shum '770 performance monitor explicitly adds an advantageous report to the Shum '770 invention.

6. Claims 9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shum '770, in view of the U.S. Patent No. 5,892,898 issued to Fujii et al. (hereafter Fujii '898).

Claims 9 and 14:

Regarding Claims 9 and 14, Shum '770 teaches all the limitations of Claims 7 and 12 [supra]. However, Shum '770 does not explicitly teach that a task name is associated with an error encountered by said computer system.

Fujii '898 teaches error management system. Specifically, Fujii '898 teaches that a task name is associated with an error encountered by said computer system [Fujii '898: col. 1, ln. 52 to col. 2, ln. 13].

It would have been obvious to apply the error management system of Fujii '898 with the system of Shum '770. The motivation to accomplish said application is suggested by Fujii '898 which teaches that event viewers that identify error messages and associate them with the appropriate application, device driver, or operating system function assist in debugging errors [Fujii '898: col. 1, lns. 13-28]. Combining the error management system of Fujii '898 to the Shum '770 invention provides the advantage of allowing the Shum '770 to not only report errors, but report to the user the source of the error.

7. Claims 10-11 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shum '770, in view of Knowles '96.

Claims 10 and 15:

Regarding Claims 10 and 15, Shum '770 teaches all the limitations of Claims 7 and 12 [supra]. However, Shum '770 does not explicitly teach that data associated with said task name includes information acquired during previous executions of said task.

Knowles '96 teaches the EVENT VIEWER (TM) utility in MICROSOFT WINDOWS (TM). Specifically, Knowles '96 teaches an application that cumulatively collects and view event information over multiple executions of a task [Knowles '96: pp. 179-185].

It would have been obvious to combine the ability to cumulatively collect and view event information over multiple executions of a task as taught by Knowles '96 with the Shum '770 invention. The motivation to combine is suggested by Knowles '96 that an application that shows cumulative errors in the past is able to show a user that a small problem is growing into a larger problem [Knowles '96: p. 72]. This capability is desirable to add to the Shum '770 task status inquiry facility.

Claims 11 and 16:

Regarding Claims 11 and 16, Shum '770 and Knowles '96 in combination teach all the limitations of Claims 10 and 15 [supra]. Further note that Shum '770 teaches that said information acquired is retrieved from an activity record for said task [Shum '770: col. 5, lns. 33-40]. Specifically, Shum '770 has the capacity to review activity records to obtain task status information which is inclusive and not necessarily limited to any data that the operating system may provide [Shum '770: col. 5, lns. 17-40]

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- U.S. Patent No. 6,243,825 to Gamache et al. "Method and System for Transparently Failing Over a Computer Name in a Server Cluster." Provides a good reference for failover clusters, an alternative way to argue auxiliary databases.

- Rosenberg, Jonathan, "How Debuggers Work, Algorithms, Data Structures, and Architecture," 1996, John Wiley and Sons. While primarily a reference for implementing debuggers, provides good information on traces, dumps, etc.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J Santos whose telephone number is 703-305-0707. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 703-308-1436. The fax phone number for the organization where this application or proceeding is assigned is 703-746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Patrick J.D. Santos
January 20, 2004



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